

Situation Analysis of Healthcare Standards and Criteria That Contribute to the Care of Residents in Homes for Older People in Tanzania

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Abstract

Problems experienced in homes for older people in Tanzania highlighted the need for a situation analysis of healthcare standards to identify the baseline of care provided to residents in these homes. This study conducted a situation analysis of structure healthcare standards and associated criteria with the aim of contributing to improved quality of care for residents in homes for older people in Tanzania. Thirty-two homes for older people in Tanzania were audited using an audit instrument that included seven fields, 26 structure standards, and 262 associated criteria. The analysis showed that overall, the homes were non-compliant with healthcare structure standards and associated criteria. The Tanzanian Government should urgently introduce measures to address the missing standards and associated criteria.

Keywords

elder care, healthcare, homes for older people, structure standards, situation analysis, Tanzania.

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What This Paper Adds

- This study highlighted the absence of healthcare structure standards and associated criteria required to provide quality healthcare to residents in homes for older people in Tanzania.
- The findings will raise awareness among the Tanzanian Government and other stakeholders about the poor conditions in homes for older people in Tanzania, and provide baseline information for improving care for older people living in these homes.
- The study developed an audit instrument that may be useful in assessing healthcare structure standards in other developing countries.

- These healthcare standards and associated criteria may also be used for benchmarking between countries and between healthcare organizations.
- The standards and associated criteria may be used as a teaching resource for healthcare workers in universities and colleges.

Introduction

Tanzania has various types of homes for older people who do not have relatives that are able to take care of them. These include: care homes, nursing homes, institutional care homes, long-term care homes, care institution homes, residential care homes, residential homes,

Applications of Study Findings

- Addressing the missing healthcare standards may be useful for the government and policymakers to ensure the best evidence-based practice and decision-making processes in homes for older people.

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and assisted living homes. However, problems in homes for older people do not appear to be prioritized in Tanzania. For example, many homes lack guiding principles and standards, which result in poor conditions (Legal and Human Rights Centre, 2012; Zanzibar Legal Services Centre, 2012). In addition, most homes for older people in Tanzania have buildings and facilities that are outdated, offer undignified conditions, and are in poor repair, as many were constructed under the Ujamaa policies in the 1970s or during colonial times (Boddy-Evans, 2017).

The present researcher, who is a Tanzanian citizen and healthcare worker, observed various issues during healthcare field work in these homes. These problems included lack of fencing and security guards, meaning many residents left these homes to beg on nearby main roads. For these residents, spending time on the roads increases the risk for accidents, sunburn, and respiratory infections, especially during rainy seasons. Furthermore, the researcher frequently noted a lack of good quality care, with residents observed wearing dirty and ragged clothes and often suffering from various skin infections (e.g., scabies). Informal conversations between the researcher and residents in these homes indicated that they often experienced food shortages and problems with drinking water. Residents also complained that adequate medications were unavailable and some illnesses were poorly managed. Despite the numerous problems and challenges facing homes for older people in Tanzania, these homes still accommodate residents. However, a paucity of research means information about the performance of these homes is limited, and there is a lack of evidence of the provision of adequate care in the homes (Spitzer & Mabeyo, 2016).

Despite the Tanzanian Government's commitment to ensuring that quality healthcare is rendered to older people, substandard care appears to be provided to residents in homes for older people (Kivelia & Kirway, 2017), and free and accessible health services for this population, as stated in the National Aging Policy 2003, have not been implemented (Kagaruki, 2013). Based on problems that were acknowledged in the few existing studies on this topic as well as problems that were directly observed by the researcher, there is a clear need to improve standards, assessment strategies, and monitoring of the delivery of care for older people. This study undertook a situation analysis of healthcare standards and associated criteria in homes for older people in Tanzania. Improving adherence to these standards and introducing missing standards may contribute to improving residents' care and well-being (Abazari et al., 2018).

Methods

Study Design

This quantitative study used an exploratory descriptive design (Moyle et al., 2015; Sousa et al., 2007) to conduct an audit-based situation analysis of Tanzanian homes for

older people. As little information was available about the performance of these homes in Tanzania, it was necessary to observe and describe the conditions in these homes.

Study Area and Setting

This study was conducted in mainland Tanzania, which is divided into six different geographical zones. Homes for older people that were included in this study were located in all six geographical zones.

Population and Sampling

In total, 34 homes for older people (17 public and 17 private homes) were identified in Tanzania. Of these 34 homes, two homes (one public and one private) were used for a pilot study, and the remaining 32 homes were included in the main study. As all identified homes for older people were included in this study, there were no inclusion or exclusion criteria.

Pilot Study

A pilot study was conducted to pre-test the methodology used in this study. The pilot study sample was 10% ($n=2$) of the sample size (34 homes) (Muhamad et al., 2017). The pilot study assisted in clarifying the duration of data collection and the time required to complete an audit of one home. Furthermore, the pilot study allowed the researcher to become familiar with the study subjects and setting, and the environment in Tanzanian homes for older people.

Data Collection Tool

The audit instrument that was used evaluate the homes was developed by the researcher. To ensure data quality, the context in which the standards were applied was considered and the process of developing the instrument was based on sequential steps: research background, questionnaire conceptualization, format and data analysis, and establishing validity and reliability (Son, 2018). In developing the instrument, the researcher drew on established standards identified from the literature, direct experience of Tanzanian homes for older people, and established international standards. Therefore, the audit instrument was based on previously identified domains, standards, and corresponding criteria (Makkar et al., 2015). In this study, domains were referred to as fields (Audit instrument).

Data Collection

The researcher visited each home for older people in Tanzania. With assistance from the general managers, the researcher audited each home using the audit instrument and identified whether the structure standards required to

Table 1. Doorways, Passages and Staircases Provide Safe Access to Residents (N=32).

Criteria	Non-compliant	Compliant
	Frequency (%) (N=32)	Frequency (%) (N=32)
I.1 Footlights at both sides of stairs	32 (100)	0 (0)
I.2 End of stairs clearly marked (top to bottom)	32 (100)	0 (0)
I.3 Stairs are free from damage	26 (81)	6 (19)
I.4 Handrails on both sides of stairs	24 (75)	8 (25)
I.5 Doorways wide enough for passage of residents, wheelchairs, and hoists	6 (19)	26 (81)
I.6 Doorways are obstruction free	0 (0)	32 (100)
I.7 Door thresholds aligned with floor	5 (16)	27 (84)
I.8 Proper lighting	21 (66)	11 (34)
I.9 Furniture arranged to facilitate mobility	7 (22)	25 (78)
I.10 Non-slip floors	8 (25)	24 (75)
I.11 Railings in passages on both sides	24 (75)	8 (25)
I.12 Overhead lights	7 (22)	25 (78)

contribute to quality healthcare were in place. In each home, the audit instrument was used to rate each standard and associated criteria as compliant, non-compliant, or not applicable. Data collection was completed over 2 months from June 1 to July 31, 2020.

Validity and Reliability

Validity was assured through testing the construct, content, and face validity of the developed instrument. Content validity was established by considering the relevance, quality and applicability of the instrument (Almanasreh et al., 2019). This was based on relevant literature, and guided by ISQua standards and England's Care Standards Act, 2000. To ensure construct validity, the instrument was checked by experts in geriatrics (the researcher's supervisor and co-supervisor) and a biostatistician. This evaluation confirmed that the instrument could successfully measure what it set out to measure (i.e., standards and associated criteria for homes for older people). Feedback from these experts was used to modify the instrument, with the revised version deemed to be applicable; this also ensured face validity. Moreover, the researcher completed practical training on how to audit homes for older people and audited one home under guidance of their supervisor.

The Cronbach's alpha coefficient for the instrument was also calculated. The alpha coefficient was .928, which showed the instrument had relatively high internal consistency. Reliability was further assured through generalizability, which is the extent to which the findings can be realistically applied to other groups and locations (Tiokhin, 2018). The audited homes were distributed across all six geographical zones in Tanzania, and thereby represented the whole country. Furthermore, the number of homes that were included in this study was sufficiently large to enable the results to be applicable to homes for older people in other developing countries, especially in Africa.

Data Analysis and Presentation

Data were cleaned and statistical analyses performed using SPSS version 26 (Green & Salkind, 2016). Data were presented as frequencies using tables.

Ethical Considerations

Approval to conduct this study was obtained from the ethics committee of the relevant university at which the researcher was completing their PhD. In addition, permission to conduct this study was obtained from the Ministry of Health and Social Welfare of Tanzania and the managers of the participating homes. Data were only accessible to researcher, their supervisor/co-supervisor, and the biostatistician.

Findings

This situational analysis of homes for older people was conducted to answer the question, "What are the healthcare standards currently applied to provide safe, quality care for residents in homes for older people in Tanzania?" The audit instrument was structured according to specific fields, healthcare standards, and criteria, and each home was audited according to these fields, standards, and associated criteria. The results for each item were recorded as compliant, non-compliant, or not applicable.

Field 1 Infrastructure: Basic Physical Structures and Facilities Enabling Efficient and Effective Functioning of the Home

Standard 1.1: Doorways, passages and staircases provide safe access for residents. Twelve criteria were used to evaluate the compliance with standard 1.1 (Table 1). None of the 32 homes were compliant with all criteria for this standard. All homes (100%) were non-compliant with the requirement to have footlights at both sides of the stairs and the end of the stairs (from top to bottom) clearly

Table 2. Bedrooms Provide Total Comfort to Residents (N=32).

Criteria	Non-compliant	Compliant
	Frequency (N=32) (%)	Frequency (N=32) (%)
2.1 Bedrooms for the number of residents	6 (19)	26 (81)
2.2 Hospital beds for frail care provided	26 (81)	6 (19)
2.3 Spacing between beds	5 (16)	27 (84)
2.4 Bedside rails	32 (100)	0 (0)
2.5 Bedside light accessible	29 (91)	3 (9)
2.6 Emergency alert system accessible from bed	32 (100)	0 (0)
2.7 Controlled temperature system	32 (100)	0 (0)
2.8 Floor lights	32 (100)	0 (0)
2.9 Bedside cupboard	13 (41)	19 (59)
2.10 Screens/curtains between beds to provide privacy	32 (100)	0 (0)
2.11 Ventilation	21 (66)	11 (34)
2.12 Towel rails	27 (84)	5 (16)
2.13 Cupboard for residents' clothes	13 (41)	19 (59)

Table 3. Bathrooms and Showers Provide Safe Access to Bath or Shower (N=32).

	Non-compliant	Compliant
	Frequency (N=32) (%)	Frequency (N=32) (%)
3.1 Easy access to bathroom	13 (41)	19 (59)
3.2 Able to safely transfer in/out of tub or shower	21 (66)	11 (34)
3.3 Floor lights available	32 (100)	0 (0)
3.4 Grab bars available and secure	27 (84)	5 (16)
3.5 Non-slip floorings in bath or shower	8 (25)	24 (75)
3.6 Shower adaptable with shower chair, walk-in shower	24 (75)	8 (25)
3.7 Container/bin for proper disposal of soiled incontinence pads/napkins	29 (91)	3 (9)
3.8 Bath positioned in the center of the bathroom	19 (59)	13 (41)
3.9 Easy access for a hoist	29 (91)	3 (9)
3.10 Easy access for wheelchairs	16 (50)	16 (50)
3.11 Emergency alert system accessible	32 (100)	0 (0)
3.12 Towel rails	27 (84)	5 (16)

marked. In addition, 26 (81%) homes were non-compliant with the requirement to have stairs free from damage and 24 (75%) homes were non-compliant with the requirement to have handrails on both sides of the stairs.

Standard 1.2: Bedrooms provide total comfort for residents. Thirteen criteria were audited to evaluate compliance with standard 1.2 (Table 2). None of the homes were compliant with all criteria, and were therefore non-compliant with the standard. All 32 homes (100%) were non-compliant with the requirements to have bedside rails and emergency alert systems that were accessible from bed. Furthermore, 26 (81%) homes were non-compliant in terms of providing specific beds for the care of frail residents.

Standard 1.3: Bathrooms and showers provide safe access to bath or shower. Twelve criteria were audited to evaluate compliance with standard 1.3 (Table 3). All 32 homes (100%) were non-compliant with this standard. None of the homes had floor lights, most homes ($n=29$, 91%) had

no emergency alert systems, and only five (16%) homes had secured grab bars in bathrooms and showers.

Standard 1.4: Toilets are safe and accessible. Six criteria were audited to evaluate compliance with standard 1.4 (Table 4). All 32 homes (100%) were non-compliant with this standard. Twenty-nine (91%) homes did not have clearly marked residents' toilets, and 29 (91%) homes did not have clearly marked toilets for males and females. Furthermore, 29 (91%) homes did not provide a container/bin for the proper disposal of soiled incontinence pads.

Standard 1.5: Kitchen facilities for preparation of meals for the number of residents. In total, 12 criteria were audited to evaluate compliance with standard 1.5 (Table 5). All homes (100%) were non-compliant with this standard. Thirteen (41%) homes had insufficient utensils, and 10 (31%) homes did not have the required cooking equipment. Over half of the homes were non-compliant with seven criteria: freezers, cold storage rooms, crockery, protective clothing for cooks, a cupboard for stainless

Table 4. Toilets are Safe and Accessible (N= 32).

	Non-compliant	Compliant
	Frequency (N= 32) (%)	Frequency (N= 32) (%)
4.1 Residents' toilets clearly marked	29 (91)	3 (9)
4.2 Clearly marked toilets for males and females	29 (91)	3 (9)
4.3 Grab bars available and secure	27 (84)	5 (16)
4.4 Overhead lighting	12 (37)	20 (63)
4.5 Staff toilets marked	16 (50)	16 (50)
4.6 Container/bin for proper disposal of soiled incontinence pads	29 (91)	3 (9)

Table 5. Kitchen Facilities for Preparation of Meals for the Number of Residents (N= 32).

	Non-compliant	Compliant
	Frequency (N= 32) (%)	Frequency (N= 32) (%)
5.1 Storage space for food for present number of residents	7 (22)	25 (78)
5.2 Stoves available for the size of the home	12 (37)	20 (63)
5.3 Utensils	7 (22)	25 (78)
5.4 Utensils within reach	13 (41)	19 (59)
5.5 Freezer	25 (78)	7 (22)
5.6 Cold storage room	29 (91)	3 (9)
5.7 Crockery	27 (84)	5 (16)
5.8 Water jugs and tumblers	23 (72)	9 (28)
5.9 Cooking equipment	10 (31)	22 (69)
5.10 Protective clothing for the cooks	20 (62)	12 (38)
5.11 Cupboard for stainless steel items	19 (59)	13 (41)
5.12 Cupboard for glassware	19 (59)	13 (41)

Table 6. Dining Room Provides Facilities for Residents to have Their Meals (N= 32).

Criteria	Non-compliant	Compliant
	Frequency (N= 32) (%)	Frequency (N= 32) (%)
6.1 Dining tables	16 (50)	16 (50)
6.2 Chairs	16 (50)	16 (50)
6.3 Limited number of wheelchair-friendly tables	16 (50)	16 (50)
6.4 Emergency alert system accessible	32 (100)	0 (0)
6.5 Tablecloths and serviettes	24 (75)	8 (25)

steel items, a cupboard for glassware, and water jugs and tumblers.

Standard 1.6: Dining room provides facilities for residents to have their meals. Five criteria were audited to evaluate compliance with standard 1.6 (Table 6); none of the homes had an emergency alert system accessible for residents in the dining room. Only 16 (50%) homes were compliant with the requirement to have sufficient chairs and tables in their dining rooms. However, 16 (50%) homes had a limited number of wheelchair-friendly tables.

Standard 1.7: Facility for residents with Alzheimer's disease to ensure their safety and security. Sixteen criteria were audited to evaluate compliance with standard 1.7 (Table 7). All 32 homes (100%) were non-compliant with the criteria required to meet this standard.

Field 2: Clinical Management

Standard 2.1: Emergency tray available for emergency care. Ten criteria were audited to assess compliance with standard 2.1 (Table 8). All homes (100%) were non-compliant with this standard. None of the homes

Table 7. Facility for Residents with Alzheimer’s Disease to Ensure Their Safety and Security (N= 32).

Criteria	Non-compliant	Compliant
	Frequency (N= 32) (%)	Frequency (N= 32) (%)
7.1 Spacious rooms available	32 (100)	0 (0)
7.2 Windows have safety guards attached	32 (100)	0 (0)
7.3 Windows with covering (no curtains)	32 (100)	0 (0)
7.4 Beds with minimum linen	32 (100)	0 (0)
7.5 Built in cupboards with locks	32 (100)	0 (0)
7.6 No movable furniture	32 (100)	0 (0)
7.7 Wash basins and baths have taps without a turn-on knob	32 (100)	0 (0)
7.8 Well ventilated rooms with controlled temperature	32 (100)	0 (0)
7.9 Rooms with locked doors	32 (100)	0 (0)
7.10 Access to outdoor secure areas	32 (100)	0 (0)
7.11 Handrails in the hallways and grab-bars in the bathrooms.	32 (100)	0 (0)
7.12 Non-slip floors	32 (100)	0 (0)
7.13 Minimized sharp color contrasts in flooring, and borders and strong, busy patterns avoided	32 (100)	0 (0)
7.14 Motion detectors in rooms of residents prone to falls.	32 (100)	0 (0)
7.15 Exits that lead to unprotected areas monitored	32 (100)	0 (0)
7.16 Exit doors not intended for resident use situated parallel to the hallway, so they are less visible	32 (100)	0 (0)

Table 8. Emergency Tray Available for Emergency Care (N= 32).

Criteria	Non-compliant	Compliant
	Frequency (N= 32) (%)	Frequency (N= 32) (%)
8.1 Laryngoscope	32 (100)	0 (0)
8.2. Spatula	32 (100)	0 (0)
8.3 Mouth gag	32 (100)	0 (0)
8.4 Tongue forceps	24 (75)	8 (25)
8.5 Ambubag	24 (75)	8 (25)
8.6 Adrenaline	23 (72)	9 (28)
8.7 Atropine	23 (72)	9 (28)
8.8 Phenergan	23 (72)	9 (28)
8.9 Needles of various sizes	14 (44)	18 (56)
8.10 Syringes of various sizes	14 (44)	18 (56)

had mouth gags and spatulas, and most homes did not have the required items to respond to an emergency. Only nine (25%) homes were compliant with the requirement to have an ambu bag.

Standard 2.2 Equipment for direct care variable. Eleven criteria were audited to evaluate compliance with standard 2.2 (Table 9). All 32 homes (100%) were non-compliant with this standard, including the requirement to have oxygen cylinders. Furthermore, 24 (75%) homes were non-compliant with the requirement to have a portable suction machine.

Table 9. Equipment for Direct Care Available (N= 32).

Criteria	Non-compliant	Compliant
	Frequency (N= 32) (%)	Frequency (N= 32) (%)
2.1.1 Surgical instruments	21 (66)	11 (34)
2.1.2 Hoist for heavy residents	32 (100)	0 (0)
2.1.3 Wheelchairs	17 (53)	15 (47)
2.1.4 Walking aids	18 (56)	14 (44)
2.1.5 Raised toilet seat	26 (81)	6 (19)
2.1.6 Commode	29 (91)	3 (9)
2.1.7 Blood pressure apparatus	20 (63)	12 (36)
2.1.8 Thermometers	17 (53)	15 (47)
2.1.9 Weighing scale	18 (56)	14 (44)
2.1.10 Portable suction machine	24 (75)	8 (25)
2.1.11 Oxygen cylinders with gage filled with oxygen	32 (100)	0 (0)

Field 3: Meals and Water

Standard 3.1: Residents provided with meals according to individual needs. Four criteria were audited to evaluate compliance with standard 3.1. Many homes were compliant with the four criteria in this standard, with 19 to 20 homes being compliant with each criterion. The rates of non-compliance with each criterion ranged from 12 to 13 homes. Overall, the homes were not fully compliant with this standard (Table 10).

Standard 3.2: Water is available. Two criteria were audited to evaluate compliance with standard 3.2. All homes

Table 10. Residents Provided with Meals According to Individual Needs (N = 32).

Criteria	Non-compliant	Compliant
	Frequency (N = 32) (%)	Frequency (N = 32) (%)
9.1 Meals menu rotated between seasons	12 (38)	20 (63)
9.2 Special meals provided	13 (41)	19 (59)
9.3 Schedule for mealtimes	12 (38)	20 (63)
9.4 Schedule for tea times	12 (38)	20 (63)

Table 11. Availability of Water (N = 32).

Criteria	Non-compliant	Compliant
	Frequency (N = 32) (%)	Frequency (N = 32) (%)
10.1 Supply of hot and cold water for the number of residents	23 (72)	9 (28)
10.2 Ionized water	17 (53)	15 (47)

Table 12. Residents' Basic Human Rights of Confidentiality, Respect, Privacy, Dignity, and Access to Information are Respected (N = 32).

Criteria	Non-compliant	Compliant
	Frequency (N = 32) (%)	Frequency (N = 32) (%)
11.1 Resident surveys	29 (91)	3 (9)
11.2 Archive facility for residents' records	29 (91)	3 (9)
11.3 Secure filing system of residents' information	29 (91)	3 (9)
11.4 Safe recordkeeping facility	29 (91)	3 (9)
11.5 Complaints/compliments register	29 (91)	3 (9)
11.6 Consent forms available	29 (91)	3 (9)
11.7 Locked facility for files of the residents	29 (91)	3 (9)

Table 13. Policies Available to Provide Guidance to Activities in the Home (N = 32).

Criteria	Non-compliant	Compliant
	Frequency (N = 32) (%)	Frequency (N = 32) (%)
12.1 Admission	27 (84)	5 (16)
12.2. Living needs	29 (91)	3 (9)
12.3 Safety and security of residents	29 (91)	3 (9)
12.4 Resident satisfaction	29 (91)	3 (9)
12.5 Prohibiting abuse of patients	29 (91)	3 (9)
12.6 Information to residents and families	29 (91)	3 (9)
12.7 Quality assurance	29 (91)	3 (9)
12.8 Infection control and prevention	29 (91)	3 (9)
12.9 Record keeping	29 (91)	3 (9)
12.10 Environment hygiene	29 (91)	3 (9)
12.11 Safe keeping of valuables	29 (91)	3 (9)

were non-compliant with this standard (Table 11). Overall, 17 (53%) homes were non-compliant with the requirement to provide ionized water, and only nine (28%) homes were compliant with the requirement to supply hot and cold water for the number of residents.

Field 4: Residents' Rights

Standard 4.1: *Residents' basic human rights of confidentiality, respect, privacy, dignity, and access to information are respected.* Seven criteria were audited to assess compliance with standard 4.1. Most (n = 29, 91%) homes were non-compliant with this standard (Table 12), and only

three (9%) were compliant with all seven criteria in this standard.

Field 5: Guiding Documents for Residents' Care

Standard 5.1: *Policies available to provide guidance to activities in the home.* Eleven criteria were audited to evaluate compliance with standard 5.1. Most homes (n = 29, 91%) had no policies that provided guidance for activities in the home, and were therefore non-compliant with this standard (Table 13). Only five (16%) homes had admission policies, and only three (9%) homes were

Table 14. Specific Indicators Set to Monitor and Evaluate Care Provided to Residents (N=32).

	Non-compliant	Compliant
	Frequency (N=32) (%)	Frequency (N=32) (%)
I3.1 Bowel incontinence	24 (75)	8 (25)
I3.2 Home-acquired pressure ulcers	24 (75)	8 (25)
I3.3 Scabies	24 (75)	8 (25)
I3.4 Depression	24 (75)	8 (25)
I3.5 Infection	27 (84)	5 (16)
I3.6 Falls	24 (75)	8 (25)
I3.7 Adverse events	27 (84)	5 (16)
I3.8 Residents' satisfaction surveys	27 (84)	5 (16)

Table 15. Requirements Available for Ensuring Residents' Protection and Home Environment Which are Free From Danger and Threats (N=32).

Criteria	Non-compliant	Compliant	N/A
	Frequency (N=32) (%)	Frequency (N=32) (%)	Frequency (N=32) (%)
I4.1 Fire extinguishers	23 (72)	9 (28)	0 (0)
I4.2 Fire alarm system	29 (91)	3 (9)	0 (0)
I4.3 Smoke detectors	29 (91)	3 (9)	0 (0)
I4.4. Fire hose	29 (91)	3 (9)	0 (0)
I4.5 Doors leading to the outside are linked to an alarm system	32 (100)	0 (0)	0
I4.6 If there is a lift clearly marked not to be used when there is a fire	18 (100)	0 (0)	14 (44)
I4.7 Alarm system for break-ins or robberies	32 (100)	0 (0)	0 (0)
I4.8 Cameras in the passages of the building	32 (100)	0 (0)	0 (0)
I4.9 Surveillance system on the grounds	32 (100)	0 (0)	0 (0)
I4.10 Security guards at entry gates	28 (87)	4 (13)	0 (0)
I4.11 Emergency exits clearly marked	32 (100)	0 (0)	0 (0)
I4.12 Signage clearly marked	29 (91)	3 (9)	0 (0)
I4.13 Storage for hazardous chemicals	32 (100)	0 (0)	0 (0)

Table 16. Communication Support Systems Available to Allow Communication with Staff (N=32).

Criteria	Non-compliant	Compliant
	Frequency (N=32) (%)	Frequency (N=32) (%)
I5.1 Telephone system, resident call system, electronic communication such as email	32 (100)	0 (0)
I5.2 Call system accessible to patients in all rooms namely bathrooms, toilets, dining room and at the bedside.	32 (100)	0 (0)
I5.3 Emergency response system available	32 (100)	0 (0)

compliant with the other criteria.

Standard 5.2: Specific indicators set to monitor and evaluate care provided to residents. Eight criteria were used to evaluate compliance with standard 5.2. Most homes were non-compliant with this standard (Table 14). The majority of homes ($n=24$, 75%) were non-compliant with the five criteria related to specific indicators used to monitor and evaluate care provided to residents: bowel

incontinence, home-acquired pressure ulcers, scabies, and falls. Only five (16%) homes had specific indicators to monitor and evaluate care related to infection.

Field 6: Safety and Security

Standard 6.1: Requirements available for ensuring residents' protection and a home environment free from danger and threats. Most homes were non-compliant with the 13

Table 17. Recreational Activities Available to Allow Socialization (N=32).

Criteria	Non-compliant	Compliant
	Frequency (N=32) (%)	Frequency (N=32) (%)
16.1 Gardens	11 (34)	21 (66)
16.2 Library	16 (50)	16 (50)
16.3 A variety of recreational activities	9 (28)	23 (72)

Table 18. Staff Available for the Various Activities in the Home (N=32).

Criteria	Non-compliant	Compliant
	Frequency (N=32) (%)	Frequency (N=32) (%)
17.1 General manager/social workers	0 (0)	32 (100)
17.2 Geriatric trained professional nurse(s)	32 (100)	0 (0)
17.3 Professional nurses	29 (91)	3 (9)
17.4 Auxiliary nurses	13 (41)	19 (59)
17.5 Caregivers	10 (31)	22 (69)
17.6 Cleaners	16 (50)	16 (50)
17.7 Cooks	7 (22)	25 (78)
17.8 General maintenance workers	22 (69)	10 (31)
17.9 Security at the gates	13 (41)	19 (59)
17.10 Administrative staff	23 (72)	9 (28)
17.11 Accountant	23 (72)	9 (28)
17.12 Secretary	24 (75)	8 (25)
17.13 Housekeepers	11 (34)	21 (66)

criteria required to meet standard 6. (Table 15). All 32 homes (100%) were non-compliant with six of these criteria: doors leading to the outside linked to an alarm system; alarm system for break-ins or robberies; cameras in the passages of the building; surveillance system on the grounds; emergency exits clearly marked; and safe storage for electrical equipment. Only three (9%) homes had fire alarm systems and smoke detectors, four (13%) homes had security guards at entry gates, and nine (28%) homes had fire extinguishers. However, the criterion regarding a clearly marked lift was not applicable for 14 (44%) homes as there were no apartments and therefore no need for lifts.

Standard 6.2: Communication support systems available to allow communication with staff. Three criteria were audited to evaluate compliance with standard 6.2 (Table 16): call system accessible to patients in all rooms; availability of emergency response system; and telephone system, resident call system, and electronic communication (e.g., email). All 32 homes (100%) were non-compliant with these three criteria.

Standard 6.3: Recreational activities available to allow socialization. Three criteria were audited to assess compliance with standard 6.3 (Table 17). Most homes were compliant with these three criteria, with compliance rates for each criterion of 16 to 23 homes. The rates of non-compliance with each criterion ranged from 9 to 16

homes, meaning the homes were not fully compliant with standard 6.3.

Field 7: Human Resources

Standard 7.1: Staff available for the various activities in the home. Thirteen criteria were audited to evaluate compliance with standard 7.1 (Table 18). All 32 homes (100%) had either a qualified social worker in charge of the home (public sector) or a general manager in charge (private sector). However, none of the homes had a geriatric-trained professional nurse on staff. In addition, 29 (91%) homes did not have professional nurses. However, many of the homes ($n=19$, 59%) had auxiliary nurses, and 22 (69%) homes had caregivers on staff.

Standard 7.2 Human resource policies available to ensure efficient and effective management of human resource. Seven criteria were audited to assess compliance with standard 7.2 (Table 19). All 32 homes (100%) were non-compliant with four criteria: training and development; grievance; recognition of long service; and wellness and disciplinary policies.

Discussion

It is essential that homes for older people in Tanzania comply with the recommended fields, healthcare standards, and criteria to ensure they can provide quality

Table 19. Human Resource Policies Available to Ensure Efficient and Effective Management of Human Resources (N = 32).

Criteria	Non-compliant	Compliant
	Frequency (N=32) (%)	Frequency (N=32) (%)
7.2.1 Training and development	32 (100)	0 (0)
7.2.2 Leave	23 (72)	9 (28)
7.2.3 Grievance	32 (100)	0 (0)
7.2.4 Recognition of long service	32 (100)	0 (0)
7.2.5 Recruitment and selection	26 (81)	6 (19)
7.2.6 Wellness	32 (100)	0 (0)
7.2.7 Disciplinary	32 (100)	0 (0)

healthcare to residents. The results of this situation analysis showed that the homes were non-compliant with key elements, including doorways, passages, and staircases that provided safe access for residents. It is important that homes for older people comply with infrastructure requirements, including footlights that facilitate easy movement of residents and safe and comfortable access to indoor and outdoor facilities. Chaisomboon et al. (2020) emphasized that homes for older people should have adequate lights and facilities (e.g., handrails) and safe stairs to ensure residents are supported during movement, especially as they are at risk for accidents because of physical weakness. In addition, Kose et al. (2020) identified that and acceptable diameters of handrails is 30 to 50mm, which was consistent with relevant guidelines in Sweden, New Zealand, England, Wales, and Japan.

None of the audited homes were compliant with the requirements to have bedside rails and emergency alert systems that were accessible from residents’ beds. Bed rails are important to protect residents from falling, and emergency alert systems accessible from residents’ beds are essential during emergencies. Aranda-Gallardo et al. (2018) noted that bed rails were the most commonly used fall prevention measure among older people in Spain. In addition, the homes should suit residents’ needs and preferences, with bedrooms that are appropriate for residents’ requirements (Blumenfeld Arens et al. 2017). This audit also showed that the homes did not have bathrooms and showers that provided safe access for residents. Good floor lights and grab bars are essential for reducing risks for falls among residents. Older people are at risk for falls and fractures because of the aging process, which is characterized by poor eyesight, loss of calcium in their bones, loss of muscle, and loss of balance (Laurence & Michel, 2017; Saftari & Kwon, 2018). Eijkelenboom et al. (2017) also highlighted the need for handrails and appropriate lighting.

The audited homes were not compliant with the requirement to have accessible toilets. Homes for older people should have an adequate number of clearly marked toilets as residents are physically slower and may experience problems such as poor vision, confusion, and weakened internal anal and urethral sphincters that lead to delays reaching bathrooms or inability to

control elimination. A quantitative study in rural nursing homes in China conducted by Yu et al. (2017) showed that an adequate number of clearly marked toilets was important for convenience and comfortable elimination for residents and to ensure a clean and hygienic environment. Kanayama Katsuse et al. (2017) also noted that toilet facilities must be clearly marked and conveniently located near communal rooms.

Not all of the audited homes had appropriate kitchen facilities to prepare meals for the number of residents. Adequate nutrition is important to ensure that older people have sufficient energy and support their immune system and body functions. Absence of kitchen facilities or kitchens without the required infrastructure and equipment lead to poor food preparation and poor food safety and security, which may compromise residents’ health and nutritional needs. McWilliams et al. (2017) noted that food safety for older people is compromised by poor kitchen conditions in homes, leading to a lack of safe cooking and food storage equipment. In addition, none of the audited homes had dining rooms that provided appropriate facilities for residents to have their meals, which created an unsupportive mealtime environment. It is also inappropriate for residents to have meals in places other than a dining room, as that environment does not support social interaction. A study from Sweden indicated that dining rooms were important communal areas in homes for older people because they supported a sense of home and expanded residents’ everyday life (Johansson et al., 2022).

The present audit indicated that none of the homes were compliant with the required criteria to ensure the safety and security of residents with Alzheimer’s disease. Operating homes for older people without appropriate facilities to ensure their safety and security is a critical problem. Cass (2017) reported that the majority (81%) of older people aged ≥75 years were at risk for developing Alzheimer’s disease or dementia. These age-related diseases cause multiple problems related to falls, memory, communication, delirium, recognition and coordination, orientation, changes in behavior, judgment, and moods, all of which need special facilities.

Not all of the audited homes had an emergency supplies available for emergency care. Because of the aging

process, older people may experience various emergencies that require appropriate emergency care for symptoms that occur suddenly and unexpectedly or to prevent death or serious long-term impairment. Duong et al. (2018) reported that those aged ≥ 65 years commonly required emergency care and noted that healthcare providers should always be prepared to provide emergency care for older people. In addition, none of the audited homes had oxygen cylinders. Oxygen cylinders are essential for the relief of symptoms related to difficulty breathing, which is a common health problem among older people. Lee et al. (2017) indicated that common pulmonary issues in older people, such as chronic obstructive pulmonary disease, increased the risk for an oxygen desaturation event that indicated the need for oxygen.

Not all of the audited homes provided residents with meals according to their individual needs. Older people need a nutritionally balanced diet that provides them with all required nutrients, such as carbohydrates for energy, protein to build their body tissues, and vitamins and minerals to build body immunity. In addition, some older people need special diets depending on individual health conditions. Palese et al. (2018) indicated that it is important that meals should focus on residents' nutritional needs. Similarly, Murphy et al. (2017) noted that care home residents need flexible menus that consider nutrition requirements, hydration needs, and residents' preferences. The present study also showed that not all homes were compliant with the standard related to water. Water is essential for drinking, washing and cleanliness; operating homes for older people without adequate water exposes residents to risks such as dehydration, water-borne diseases (e.g., scabies), and a dirty environment (Arcipowski et al., 2017). Ionized water also has many benefits for older people, such as restoring the body pH balance, increasing energy level, providing extra hydration, and reducing signs of aging.

The audit findings indicated that many homes were non-compliant with ensuring residents' basic human rights (confidentiality, respect, privacy, dignity, and access to information). Obtaining informed consent from residents before giving care is a practical application of shared decision-making between health providers and patients. Non-compliance with consent forms implied that residents were not involved in making decisions about their care. Informed consent is essential as it gives the resident opportunity to authorize or refuse the intended care or treatment (Sivanadarajah et al., 2017). For older adults with cognitive disabilities, staff should obtain consent based on legal proxies (Fields & Calvert, 2015). Most of the audited homes lacked policies to provide guidance on activities in the home. Risks for residents stem from human factors (e.g., physical abuse, neglect) as well as environmental factors (e.g., falls). Therefore, policies that protect older people's safety and security are important. Poudel (2018) noted that it is necessary for policymakers to recognize the severity of

mistreatment of older people and develop policies as standard measurement to deal with such problems in care homes.

The present findings revealed that most Tanzanian homes for older people did not have specific indicators to monitor and evaluate the care provided to residents, which makes it difficult to determine whether the intended services provided to residents were achieved. Studies from the Czech Republic, Finland, France, Germany, Italy, Israel, the Netherlands, and England identified several important indicators for monitoring and evaluating care provided to residents, including: prevalence of infections and bowel incontinence (Frijters et al., 2013), scabies (Park et al., 2016), falls prevention (Barbosa et al., 2016), and pressure ulcers (Courvoisier et al., 2018). The majority of audited homes were non-compliant with the requirements to protect residents from danger and threats. Failing to provide equipment such as fire-alarm systems and fire extinguishers exposes residents to risks. Kodur et al. (2019) indicated that care homes should ensure that residents and staff were protected from events such as fire by taking all measures that decrease the risk for fires in the homes. In addition, not all homes were compliant with having communication support systems to allow communication with staff. Equipment for communication is essential in homes for older people, as it simplifies communication between residents and staff and facilitates quick care for residents. Availability of an emergency response system is also important as it connects residents and staff quickly in case of emergencies (e.g., falls). Forsgren et al. (2016) noted that resident call systems should be accessible to residents in all rooms they are using; these systems should be able to alert staff when help and support are required by residents.

This study also found that not all homes were compliant with providing recreational activities to allow socialization among residents. It is crucial that residents have access to recreational activities as these activities stimulate their mental and cognitive functions and increase their activity levels. For example, gardening has many benefits for residents, including physical exercise and increased mobility. Zhang et al. (2017) found that leisure activities in homes for older people were beneficial for older people both physically and mentally. In addition, not all homes were compliant with having the required staff for various activities in the home. To provide quality care for older people, there should be an adequate number of staff with the required knowledge and skills in geriatrics or gerontology to ensure residents receive appropriate care. Bates et al. (2019) defined geriatricians as health workers that were engaged in direct care activities as primary care providers, clinician educators, academic and policy researchers for the care of older people. In addition, Harrington et al. (2016) indicated that there should be an adequate number of care providers in residential homes on a daily basis to provide care according to residents' basic needs, such as

assessment of health problems, and essential and leisure needs. Finally, the audit showed that none of the homes had the required staff training and development and disciplinary policies. A survey of community care for older people conducted in Norway highlighted that there should be strategies for staff training and development (Bing-Jonsson et al., 2016).

Conclusion

This study conducted an audit of the healthcare standards in homes for older people in Tanzania to answer the question, “What are the healthcare standards currently applied to provide safe, quality care for residents in homes for older people in Tanzania?” The instrument covered seven fields, 26 healthcare standards, four sub-standards, and 262 criteria. None of the audited homes met the criteria required to meet all of the standards. These results show that homes for older people in Tanzania are generally non-compliant with established healthcare structure standards and associated criteria. Therefore, the Tanzanian Government should urgently introduce measures to address the missing healthcare standards and associated criteria to improve the quality of healthcare for residents in these homes.

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Authors' Contributions

Dr Victor Mathias: Was a PhD student, taking over all control of the project.

Prof Ethelwynn L Stellenberg: Supervisor

Dr Mariana van der Heever: Co-supervisor

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Supplemental Material

Supplemental material for this article is available online.

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